

REMARKS/ARGUMENTS

Claims 1-4, 9-22, 27-40 and 54-55 are currently pending. Claims 1, 9, 10, 19, 27, 28, 37, 46 and 46 have been amended and no new matter has been added. No new claims have been added. Applicants respectfully request reconsideration.

Rejection of Claims 1-4, 19-22 and 37-40 under 35 U.S.C. § 103(a)

Claims 1-4, 19-22 and 37-40 stand rejected under 35 U.S.C. § 102(e) as purportedly being anticipated by Vancillie et al. (U.S. Pat. No. 5,095,917; hereinafter referred to as "Vancillie") in view of Tay (U.S. 5,810,810).

Vancillie:

Vancillie describes a transuterine sterilization procedure "... which involves destruction of the mucosa followed by insertion of a biodegradable plug. The mucosal destruction provokes an inflammatory reaction and the plug serves as a substrate to guide the healing process toward occlusion instead of recanalization..." At described at column 3, lines 38-42 Vancillie describes "After a period of 3-6 weeks, cells gradually disappear and leave behind them a dense structure of fibers known as scar tissue..."

As described at page 4 of Applicant's specification, one problem with generating scar tissue, as Vancillie does, is that the "cells that comprise this foreign body response can differentiate into myofibroblasts that are capable of contracting around the material and either cause the material to distort or fracture, or in the fallopian tube, dislodge the implant. The combination of myofibroblastic contractions, peristaltic movement of the tube, tubal contractions, and ciliated epithelium create a combined force capable of expulsing the material from the tube..."

The present invention overcomes the problems of Vancillie through the use of limited thermal damage in combination with foam plugs having pore sizes selected to result in vascularized regrowth. Sufficiently large pore sizes result in vascularized ingrowth into the pores. Sufficiently small pore sizes inhibit any growth into the foam plug, causing instead a vascularized capsule to form around the plug. Vancillie, in

contrast, neither describes nor suggests such a combination of structures. Rather, Vancillie heats at 5 watts, for 5–15 seconds to cause scar tissue to grow into the plug. For example, as described at column 3 lines 34–38 “Due to the presence of the plug, fibroblasts will not only colonize the injured tissue but also the plug...” Thus Vancillie neither describes nor suggests the elements of the claim invention, as no vascularized ingrowth or capsule growth is enabled.

Applicant's recognize that the rejection is based on a combination of Vancillie and Tay. Tay teaches a method for sealing vascular punctures where thermal heat is applied to seal together vascular tissue. Tay neither describes nor suggest the use of foam plugs, and thus the combination of Tay and Vancillie neither describe nor suggest “...the plug comprises a foam plug having a pore size selected to encourage at least one of vascularized tissue ingrowth and vascularized capsule growth...” as now recited in all of the independent claims of this application. For at least the reason that the combination of references fail to teach or suggest every element of the claims, it is respectfully requested that the rejection of claims 1, 19 and 37 be withdrawn.

It is noted that the Examiner has rejected several of the dependent claims based on the combination of Vancillie and Tay with other references, such as Zelluff, Barbacci and Brundin. It is noted that although Zelluff may mention pore size, Zelluff focuses on the growth of fibroblasts, not on encouraging growth of vascularized tissue. Similarly neither Barbacci nor Brundin suggest the elements of the claimed invention, either alone or in combination with Vancillie and Tay. It is therefore requested that the rejection of claims 2–4, 9–18, 20–22, 27–36, 38–40 and 45–54 be allowed for at least the reason that they serve to further limit an allowable parent claim.

Conclusion

In light of the above Remarks, Applicants respectfully request that a timely Notice of Allowance be issued in this case. If the Office should have any questions or other issues to discuss, please do not hesitate to contact the undersigned attorney.

Applicants believe a one month extension of time fee is required. Please consider this a request for a one month extension of time and charge Deposit Account No. 50-2855 accordingly. Any deficiency or overpayment may also be applied to Deposit Account No. 50-2855.

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Respectfully submitted,

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